

Package ‘plot4fun’

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Type Package

Title Just Plot for Fun

Version 0.1.1

Description Explore the world of R graphics with fun and interesting plot functions!

Use `make_LED()` to create dynamic LED screens, draw interconnected rings with `Olympic_rings()`, and make festive Chinese couplets with `chunlian()`.
Unleash your creativity and turn data into exciting visuals!

License GPL-3

Encoding UTF-8

RoxygenNote 7.2.3

Depends R (>= 4.1.0)

Imports magrittr, ggplot2, stats, utils, grDevices, reshape2, graphics, pcutils, ggforce, plot3D, magick, gifski, showtext, sysfonts

Suggests wordcloud2, geomtextpath

NeedsCompilation no

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chunlian	<i>Draw a Chunlian (Spring Festival couplet) using ggplot2</i>
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Description

Draw a Chunlian (Spring Festival couplet) using ggplot2

Usage

```
chunlian(
  words = NULL,
  bg_size = 20,
  bg_shape = 22,
  bg_fill = "red2",
  text_size = 10,
  text_params = list(),
  font_file = NULL,
  download_dir = "plot4fun_temp"
)
```

Arguments

words	A character vector containing three strings for the three lines of the couplet
bg_size	Size of the points in geom_point, 20
bg_shape	Shape of the points in geom_point (21~25), 22 or 23 are very good.
bg_fill	Fill color of the points in geom_point
text_size	Size of the text in geom_text, 10
text_params	parameters parse to geom_text
font_file	font file, e.g XX.ttf, XX.ttc
download_dir	download_dir for font_file

Value

A ggplot object representing the Chunlian

clock	<i>Plot clock</i>
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Description

Plot clock

Usage

```
clock(  
  x = format(Sys.time(), "%H:%M"),  
  time_label = as.roman(1:12),  
  rotate_text = FALSE,  
  text_color = "black",  
  bg_color = "white",  
  pointer_color = "black"  
)
```

Arguments

x	time, default: format(Sys.time(), "%H:%M"), e.g. 12:30
time_label	time_label, default: as.roman(1:12)
rotate_text	rotate_text, FALSE
text_color	text_color, "black"
bg_color	bg_color, "white"
pointer_color	pointer_color, "black"

Value

ggplot

References

<https://allanameron.github.io/geomtextpath/>

Examples

```
clock()
```

convert_chr_to_matrix *convert a character to 01 matrix*

Description

convert a character to 01 matrix

Usage

```
convert_chr_to_matrix(  
  char,  
  size = 32,  
  font_file = NULL,  
  picture_dir = tempdir()  
)
```

Arguments

char	a character
size	32
font_file	font_file
picture_dir	where to save the temporary picture

Value

chr_mat

Examples

```
convert_chr_to_matrix("A")
```

convert_img_to_matrix *convert a image to 01 matrix*

Description

convert a image to 01 matrix

Usage

```
convert_img_to_matrix(image_file, size = 32, breaks = 2)
```

Arguments

image_file	image_file
size	32
breaks	breaks, default 2

Value

chr_mat

DNA_plot	<i>Plot a DNA double helix</i>
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Description

Plot a DNA double helix

Usage

```
DNA_plot(  
  col_DNA = "#377EB8",  
  col_ATCG = c("#7FC97F", "#FB8072", "#FFFFB3", "#A6CEE3"),  
  DNA_length = 2  
)
```

Arguments

col_DNA	col_DNA, "#377EB8"
col_ATCG	col_ATCG, c("#7FC97F", "#FB8072", "#FFFFB3", "#A6CEE3")
DNA_length	DNA_length, 2

Value

ggplot

References

https://github.com/SherryDong/create_plot_by_R_base

Examples

```
DNA_plot()
```

give_you_a_rose	<i>Give you a rose</i>
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Description

Give you a rose

Usage

```
give_you_a_rose(color = "red3")
```

Arguments

color	"skyblue3"
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Value

plot

References

<https://mp.weixin.qq.com/s/W-BYPR3UXL120XWpTmN3rA>

life_game	<i>Life Game Simulation</i>
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Description

Life Game Simulation

Usage

```
life_game(  
  save_file = NULL,  
  size = 20,  
  time = 20,  
  fps = 0.75,  
  colors = c("black", "green4"),  
  ...  
)
```

Arguments

save_file	gif filename
size	size of the world
time	how many times the life game continue.
fps	fps, 0.75
colors	c("green4", "black")
...	add

Value

a gif file

References

<https://zhuanlan.zhihu.com/p/136727731>

Examples

```
if (interactive()) life_game()
```

make_LED

make a LED screen

Description

make a LED screen

Usage

```
make_LED(  
  chars = "SOS!",  
  save_file = NULL,  
  LED_width = NULL,  
  speed = 32,  
  fps = 10,  
  colors = c("grey", "red2"),  
  LED_height = 32,  
  image_scale = 10,  
  ...  
)
```

Arguments

chars	chars
save_file	save_file
LED_width	LED_width
speed	pixel speed, default 32
fps	frame per second, 10
colors	c("grey","red2")
LED_height	LED_height, 64
image_scale	image scale, 10
...	add

Value

gif file

Examples

```
if (interactive()) make_LED("SOS!")
```

my_wordcloud

Word cloud plot

Description

Word cloud plot

Usage

```
my_wordcloud(
  str_vector,
  ignore_words = "Unclassified|uncultured|Ambiguous|Unknown|unknown|metagenome|Unassig",
  topN = 50
)
```

Arguments

str_vector	string vector
ignore_words	ignore_words
topN	topN, 50

Value

a htmlwidget

Examples

```
data(otutab, package = "pcutils")
if (requireNamespace("wordcloud2")) {
  my_wordcloud(taxonomy$Genus)
}
```

Olympic_rings	<i>Plot the Olympic rings</i>
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Description

Plot the Olympic rings

Usage

```
Olympic_rings()
```

Value

ggplot

Examples

```
Olympic_rings()
```

plot.chr_mat	<i>Plot a chr_mat</i>
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Description

Plot a chr_mat

Usage

```
## S3 method for class 'chr_mat'
plot(x, colors = c("grey", "red2"), random = FALSE, ...)
```

Arguments

x	chr_mat object
colors	c("grey", "red2")
random	add random
...	add

Value

plot

show_github_calendar *Plot a github style calendar*

Description

Plot a github style calendar

Usage

```
show_github_calendar(usr = "asa12138", color = NULL, save_file = NULL, ...)
```

Arguments

usr	github username
color	color, NULL
save_file	save_file, NULL
...	add

Value

a svg file

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